IN THE CLAIMS

1.-26. (canceled)

27. (new) A chimeric protein comprising:

a first polypeptide sequence selected from the group consisting of chondroitinases, hyaluronidases, and matrix metalloproteinases; and,

a second polypeptide sequence which possesses regenerating activity for neural cells, said first and second polypeptide sequences not occurring together in nature and being joined together in said chimeric protein.

28. (new) The chimeric protein of claim 27 wherein the chondroitinase is selected from the group consisting of chondroitinase ABC exolyase, chondroitinase ABC endolyase, chondroitinase AC, and chondroitinase B.

29. (new) The chimeric protein of claim 27 wherein the second polypeptide is selected from the group consisting of:

Neural Cell Adhesion molecules (N-CAM), L1, myelin-associated glycoproteins, laminins, fibronectins, cadherins, Tenascins, fibronectin type-III (FN-III) repeats A-D (FnA-D), M1 antibodies, netrins, neural antigen BSP-2 (mouse N-CAM), neural antigen D-2, neural antigen 224-1A6-A1, nerve growth factor-inducible large external glycoprotein (NILE), Nr-CAM, TAG-1 (axonin-1), Ng-CAM, F3/F11, integrins, J1, Fasciclin III, myelin-associated glycoprotein (MAG molecules) and neurotrophic factors.

30. (new) The chimeric protein of claim 29 wherein the neurotrophic factor is selected from the group consisting of neural growth factor (NGF), brain-derived neurotrophic factor (BDNF), neurotrophin-3 (NT-3), insulin-like growth factor (IGF), epidermal growth factor (EGF), vascular endothelial growth factor (VEGF), fibroblast growth factor (FGF), platelet-derived growth factor (PDGF), transforming growth factor alpha (TGFα) and transforming growth factor beta (TGFβ).

31. (new) The chimeric protein of claim 27 further comprising a peptide linker, wherein the first polypeptide is joined to the second polypeptide by the peptide linker.

32. (new) The chimeric protein of claim 31 wherein the peptide linker is an Fc portion of an immunoglobulin.

33. (new) A pharmaceutical composition comprising a therapeutically effective amount of a chimeric protein in combination with a pharmaceutically acceptable carrier, wherein the chimeric protein comprises:

a first polypeptide sequence selected from the group consisting of chondroitinases, hyaluronidases, and matrix metalloproteinases;

a second polypeptide sequence which possesses regenerating activity for neural cells; and,

a peptide linkage which joins the first polypeptide sequence and the second polypeptide sequence in the chimeric protein.

34. (new) The pharmaceutical composition of claim 33 wherein the therapeutically effective amount of the chimeric protein is a 1 to 100 micro molar concentration in the plasma.

35. (new) The pharmaceutical composition of claim 33 wherein the therapeutically effective amount of the chimeric protein is 1 to 50 micrograms per kilogram of body weight of a patient in the plasma.